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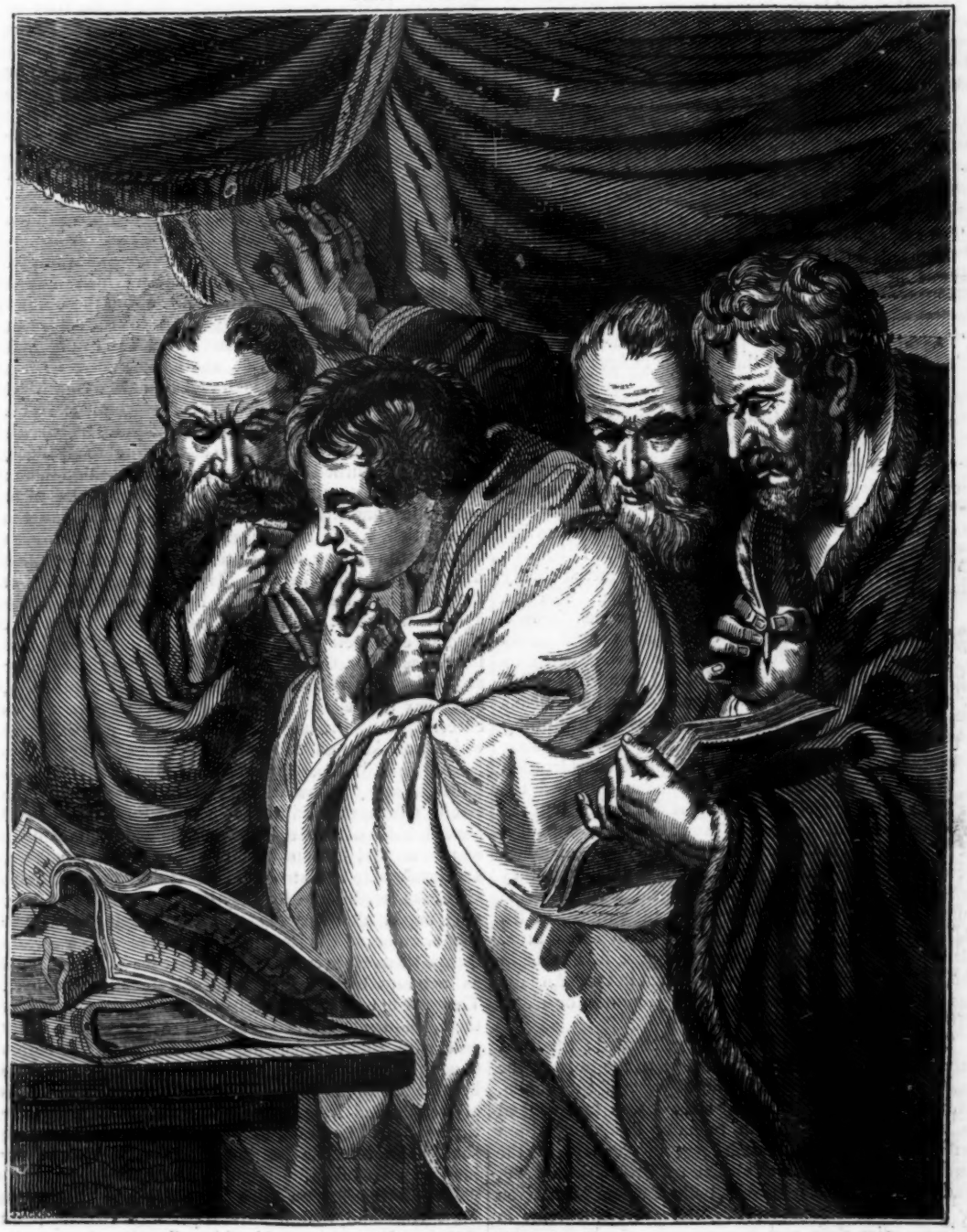
THE FOUR EVANGELISTS.



[Jordaens' 'Four Evangelists.']

OUR wood-cut is from a picture by Jordaens, of whom we had lately occasion to speak when presenting our readers with an engraving after his picture of a twelfth-day festival. The present picture is supposed to represent the four evangelists assembled for the purpose of conferring on the subjects of their writings. There are, however, several circumstances which have led some writers to doubt whether this was really the subject that the painter intended to portray, or whether the evangelists are at all the personages represented. In the

first place, no such meeting as that of which the painting would convey the idea is recorded to have taken place, and it is altogether improbable that it ever did—at least for such a purpose. The 'Gospels' appear to have been written at different times and in different places, and were not all addressed, in the first instance, to persons of the same language and modes of thought; they contain, besides, internal evidence that such a co-operation as is supposed could not have taken place. It is also objected that, if the four Evangelists be intended, the Apostle John is represented as a very young man, although, at any time when such an interview might have been possible, he could not have been less than forty years of age. The costume, also, of the figures is another circumstance against this supposition. But notwithstanding these anachronisms and violations of historical truth and probability, of which there are far more objectionable instances than this among the Dutch painters, we have little doubt that the common opinion correctly states the design of this painting.

The reader will not fail to notice the fine expression of the heads in this picture, and the efficient management of the light and shade, of which our wood-cut will give an idea; while the harmony of the colours in the original has always been mentioned with much praise.

The dimensions of the painting are three feet nine inches high, by three feet three inches in breadth.

MINERAL KINGDOM.—SECTION XXIX.

COPPER,—(*concluded.*)

THIS metal is met with in several countries of the Continent of Europe. The oldest copper-mine known was that of Rammelsberg, near Goslar, in Saxony, which was worked in the tenth century. There are several copper-mines in the Hartz mountains, and in Bohemia; but the supply of this metal in Germany is derived chiefly from the mines at Mansfeld in Thuringia. The ore is found in a bituminous marly stone, which forms a subordinate stratum, that is, one of the several series of strata which constitute the New Red Sandstone Formation (K in diagram I. No. 51); and it is called by the German miners *Kupferschiefer*, which means copper-slate. The mines were opened at the beginning of the thirteenth century, and during the three following centuries these and a few others of minor consideration in Germany, and the mines in Sweden, supplied the wants of all Europe. They are still worked, but the produce does not exceed 430 tons of copper annually. At the end of the seventeenth century copper-mines were worked in Hungary and Transylvania, and they continue to the present time to yield a considerable quantity. There are copper-mines in France, at St. Bel and Chessy in the Lyonnois, and in a few other places; but the whole produce of copper in France in the year 1832, according to a statement in the 'Annales des Mines,' was only 274,000 kilogrammes, or about 270 tons of pure copper.

Swedish copper has been long celebrated: the most famous mine is that of Fahlun, close to the town of the same name, about 130 miles north-west of Stockholm. How long a time has elapsed since it was first worked is unknown, but it began to enter into competition with the mine of Rammelsberg, in Saxony, in the twelfth century. It was visited by Dr. Clark in 1799, and by Dr. Thomson in 1812, both of whom have given a minute description of it. The ore forms veins in primary mica slate, and is a mixture of copper pyrites and iron pyrites, but is extremely poor; for according to Dr. Thomson, it does not yield more than one and a half per cent. of pure copper, a quantity so small as one would have thought would not have repaid the expense of working. About the year 1661, which was the time of its greatest prosperity, it yielded 2500 tons of copper annually; but at the time Dr. Clark visited it, it had fallen to from 400 to 500 tons. The mass of copper ore appears to have been in the form of an enormous cone with its point or apex downwards, and the excavation, which is funnel-shaped, is like the crater of a volcano. The sides of this crater being variously coloured by exhalations of sulphureous vapours from the mine, and by the action of the air on the minerals composing it, together with the volumes of smoke issuing from it, increase the resemblance, and, at the time of Dr. Clark's visit, it was not unlike the Solfatara in the neighbourhood of Vesuvius. The crater was principally caused by an accidental falling in of the ground. The base of the conical mass of ore lying nearest the surface was first worked; the galleries for extracting the ore were necessarily extensive, and the props for the support of the roofs of the different larger excavations or chambers, as the miners call them, consisting often of valuable ore, were left as slender and as few in number as possible. This, however, had been pushed too far, for they proved insufficient to support the superincumbent weight, and in the year 1666 the whole of the upper part of the mine fell in, leaving an open crater-shaped cavity 240 feet deep. From the bottom of this cavity various openings lead to the different galleries, most of which are very lofty, and to different places of further descent, of which some are 1200 feet from the surface. The smoke and vapours were caused by a considerable part of the mine being on fire. This was occasioned a few months previous to Dr. Clark's visit by some miners, who were attempting to steal ore, and being disturbed they left their torches behind them; these set fire to the timbers, which communicated to the pyrites, and it was found impossible to subdue the combustion, which rolled forth volumes of sulphureous vapours to such an extent, that this part of the mine was shut off from the rest. In the deepest recesses of the mine there were stables for horses, in which these animals were kept in total darkness for months together, without ever seeing the light of the sun. "We found them," says Dr. Clark, "quietly enjoying their fodder at the depth of 160 fathoms from their natural pastures, and they seemed to be in as good condition and as cheerful, though literally buried alive, as any of those which were kept above-ground, and some of them were fat and sleek." Speaking of the country adjoining these mines, he says, "What with the fumes from the mines, the smelting furnaces, and works for boiling the solutions of the sulphates of copper and iron, the whole atmosphere in and around Fahlun was of the most noxious kind, and intolerable to a stranger; yet it does not appear to affect the inhabitants, for they live to an advanced age. One might almost fancy that the people, from their copper-coloured countenances, had become to a certain degree themselves cupreous; for they may be considered as actually eating, drinking, and breathing copper. They have copper above, below, and on every side of them, and smoking heaps of pyrites impregnate every gale with their suffocating vapours, as if the curses denounced against the disobedient Israelites had here been made the means of industry, and the instruments of wealth and happiness. 'The heaven that is over thy head shall be brass, and the earth that is under thee shall be iron. The Lord shall make the rain of thy land powdered dust.'"

Besides the Fahlun mine there are copper-mines in East Gothland, and in several parts of Norway; but their produce is inconsiderable. The Russian empire possesses copper-mines of some importance in Siberia, on the eastern side of the Oural mountains, and also around Orenburg at the southern extremity of that chain. The ores are met with not only in primary slate, but in sandstones and clays of secondary formation, and often consist of the green and blue oxides of the metal,

Pallas describes a very rich mine in the lesser Altai chain of mountains. Villefosse estimates the total produce of the Russian copper-mines at something less than 4000 tons annually.

Armenia produces a large amount of copper, and as the ores are extremely rich, the produce of the mines would be very great if a sufficient supply of fuel could be obtained to smelt them, and if the resources of modern science were applied in the working of them. They are situated in a mountainous district a few days' journey to the south-west of the port of Trebizond on the southern shore of the Black Sea. Pysonnel states the produce of these mines, in the year 1762, to have been above 6500 tons, and they are said to be extremely productive at the present time. Mr. Hawkins informs us that they are scattered over the whole country which lies between Tocat and the Euphrates, and even extend beyond that river, along the chain of Anti-Taurus, a very considerable copper-mine being worked at the close of the last century near Argana, on the great road to Diarbekir. The produce of this mine is limited by the scarcity of fuel, which is fetched in the shape of charcoal from a distance of nearly one hundred miles. The copper which is here smelted under such apparent disadvantages is manufactured at Mosul, and in that state is floated down the Tigris to Bagdad and to Bussora. A great portion likewise of the Armenian copper has been manufactured for centuries at Erzerum, and transported down the Euphrates to the same great commercial cities, as well as by the usual land route into Persia; the consumption of this metal in the fabrication of copper utensils, which are of immemorial usage, being very great in every part of Asia. It is therefore to the country which is contiguous to these copper-mines, and more particularly to Armenia, that we must apply the passage of Ezekiel (xxvii. 13), as in the words of Michaelis,—"Tubal and Meschech traded with thee, and gave thee, in exchange for thy wares, slaves and utensils of copper."

Copper-mines are worked in Mexico, Chili, and Brazil, from which countries the produce is imported into Spain. Copper ore has lately been brought from Chili and Brazil to be smelted at Swansea. There are mines of this metal also in China and Japan, from whence it is brought to the islands of the Indian Archipelago. It has been wrought to a small extent in the island of Sumatra, and more recently in Borneo.

Uses of Copper.—Besides the well-known application of this metal in its pure state to an infinite variety of purposes, it is employed, in combination with other substances, in a great diversity of ways in the arts. Its most extensive uses in this way are, when alloyed with other metals, especially zinc, to form brass, in the proportion of three parts of copper to one of zinc; and tinsel, pinchbeck, and Dutch gold, are also compounds of copper and zinc in different proportions. When combined with from one to five per cent. of tin it becomes harder, and this is the usual composition of the very ancient copper tools and weapons, before iron and steel came into common use: the instruments used by the surgeons of antiquity were made of this alloy. With a larger proportion of tin and a little zinc it forms bronze and bell metal, and also the metal of which brass cannons are made. When alloyed with nearly half its weight of tin, and with a small admixture of arsenic, brass, and silver, it forms an extremely hard compound capable of receiving a high polish, which is used for the reflectors of telescopes. In our gold coins thirty-eight grains of pure copper are added to every ounce of pure gold, the effect of which is to make the gold harder, and therefore less liable to wear. This is what is called standard gold, and in larger proportion it forms the gold commonly used in jewellery. Standard silver contains one-twelfth part of copper, and it has also the effect of rendering the silver harder and more workable.

Blue vitriol, or Roman vitriol, is a compound of oxide of copper and sulphuric acid, or vitriolic acid, as it used to be called. Verdigris is a compound of oxide of copper with acetous acid, or vinegar, and the blue paint called verditer is a combination of oxide of copper, carbonic acid, water, and lime.

ANECDOTES OF THE ENGLISH LANGUAGE.

THERE is a curious work, by Dr. Samuel Pegge, published about thirty years ago, consisting of a defence of the dialect of London and its environs. The author shows that the great majority of what are called "cockneyisms" are not, as is commonly supposed, corruptions of the language, but were formerly in use among good writers, and have been retained by the Londoners after the literary and the refined had given them up.

Thus *regiment*, used in the sense of *regimen*, is a good old English word; and there are books extant, as Mr. Pegge observes, with the titles of 'The Regiment of Health,' 'The Regiment against the Pestilence,' &c. We often, in London, hear *contráry* for *cóntrary;* yet though we should not recommend any of our readers to adopt the first method of pronouncing this word, it may be defended by the authority of Shakspeare, who says,—

> "And themselves banding in contráry parts."
> 'Henry IV. Part I.' Act iii. Sc. 1.

In Milton, too, we find—

> "And with contráry blast proclaims most deeds."
> 'Samson Agonistes,' line 971.

The author observes that *an-otomy* is used for a skeleton, the *an* in *anatomy* having been mistaken for the article *an*. Perhaps this may be so, but in our old writers, 'an anatomy' is continually used to mean a skeleton. But passing over these lesser offences, Mr. Pegge comes to the consideration of the more grievous offences "with which the Londoners are so heavily accused by the *beau-monde* and the scholastic part of mankind. And first of the double negative. A cockney, for example, will say, 'I don't know nothing about it.'

"This is a luxuriance of no modern date among the Cockneys; but it is not of their own manufacture, for there is evidence enough in the history of our language, drawn from the old school, to show that this mode of speech—this accumulation of negatives—is no new-fangled tautology. One negative is now accepted by us and reputed as good as a thousand. The present Cockneys think otherwise; and so did the ancestors of us all. Taking the language of France for a moment as a model, a Frenchman answers your question negatively by—'Je *ne* sais *pas;*' and the Londoner, in the same phraseology, says—'I *don't* know *nothing* about it.' Now, if the abundant use of negatives be esteemed an elegance in the French language, the Cockney will say—Why not in English? And the more the better. I cannot help recounting a case in point, where a cluster of negatives is said to have been disgorged by a citizen, who, having mislaid his hat at a tavern, inquired with much vociferation—'If *nobody* had seen *nothing* of *never* a hat *no-wheres?*' But, to be more serious. Here are but three out of four that are redundant: I will now then produce the same superabundance, not indeed from an act of the whole legislative body of the kingdom, though from regal authority. In a proclamation of King Henry V. for the apprehension of Sir John Oldcastle, on account of his contumacious behaviour in not accepting the terms before tendered to him, are these words:—'Be it knowne as

Sire John Oldcastell refuse, *nor* will *not* receave, *nor* sue to have *none* of the graces,' &c.

"Though we now exclude the double negative, yet we find it very common among writers at different former periods, where the use of it was carried as far as the ear could possibly bear. An instance or two shall suffice. Thus Chaucer:

> "So lowly, *ne* so truily you serve,
> *Ne'* will *none* of 'hem, as I."
> 'Troil. and Cres.' lib. v

So also Shakspeare:

> ——"a sudden day of joy,
> That thou expect'st *not*, *nor* I look'd *not* for.'
> 'Romeo and Juliet.' Act iv., Sc. 1.

Examples occur so frequently in Shakspeare that it would be troublesome to recount them. '*No*, *nor* I think I *never* shall,' is an expression used by Roger Ascham. ('Toxophilus,' Bennett's Edit., p. 123.) He was a Yorkshireman, and there I have myself heard this similar language:—'*No*, I shall *not* do *no* such thing.'"—pp. 79, 81.

The author then gives numerous other instances of bad English which may be defended by the best authorities:—thus, *worser* is found in Shakspeare, *lesser* in Addison, and *most basest* in Sir Thomas More. One of the most curious of these embalmings of old words in modern vulgarisms consists in the use of *ax* for *ask*: for "Margaret, Countess of Richmond and Derby, in a letter to her son, Henry VII., concludes with—'As herty blessings as y can *axe* of God.' In the next reign, Dr. John Clerk writes to Cardinal Wolsey, and tells him that—'The king *axed* after your Grace's welfare.'"

Dr. Skinner, who died in 1667, mentions in his 'Etymologicon' that *ask* is pronounced by many persons *axe*, and does not censure it as a vulgarism. The fact is, that the modern word has been formed from the ancient one simply by what grammarians call a "metathesis," or transposition of letters; for *ax*, or *aks* becomes *ask* by the *k* and *s* changing places. Mr. Pegge thinks that, in the same way, *tax* and *task* are the same word, and supports this opinion by some very pertinent quotations from old writers. Thus, Holinshed says—"There was a new and strange subsidie, or *taske*, granted to be levied for the king's use;" and, in Shakspeare, Hotspur reproaches Henry IV. with having

> ——"*task'd* the whole state."
> 'Henry IV., Part I.' Act iv., Sc. 3.

Our author has some interesting observations, by way of commentary, on an expression which, he says, is very common among Cockneys. "Pray, Miss, who *learns* you to play upon the *musick?*" We shall pass over what he says on *learns* used for *teaches*, as many readers are probably familiar with the fact that, two centuries since, *learn* was employed in this sense by the most eminent writers. Mr. Pegge explains the latter part of the phrase in the following manner. He thinks that "the musick" stands for "the musicks;" and says that, when semitones were introduced, the natural and artificial keys became, as it were, two instruments, and, when spoken of together, were styled "the musicks." Thus, when the Cockneys talk of "the musick," they have merely dropped the final *s*, just as, formerly, the organ was called the organs, or a pair of organs. In the 'Diary' of Mr. Alleyne, the founder of Dulwich College, is an article where he says that, in the year 1618, he paid 8*l.* for a pair of organs. Mr. Pegge goes on to say—"I do not know how it has happened, Sir, but the letter *s* seems to have been peculiarly unfortunate, and from its sibilance has given offence in various languages. In French pronunciation it is totally sunk as a final letter; and the number of any word is to be governed by the article, the verb, or the context. In the middle of words it is quiescent nine times out of ten, though, to the eye, it has the compliment of being frequently represented by a circumflex. Mr. Pasquier, who died A.D. 1615, at the age of eighty-seven, tells us that, in the French word *honest* (now pronounced *honnête*), the letter *s* was sounded when he was a young man; but he lived to hear the *s*, with its preceding vowel, sunk into a long *e*, to the total abolition of the letter *s*."—p. 148.

If a few more *esses* could be extirpated from our own language, we should be no great losers, but the spirit of our language is rather to add to them. Such names as Matthews, Mills, &c., show the tendency of the Saxon *s* to obtrude itself everywhere; and we are quite sure that our excellent author must have been annoyed a thousand times by hearing his name converted into *Pegges*. The French method of hushing this hissing letter is curious enough. The later Attic dialect frequently substituted a *t* for it, thus *tessares* (signifying four) was changed into *tettares*. The sensibility of Attic ears seems to have been extreme. Euripides having written a line in his 'Medea' containing six sigmas (*esses*), this unfortunate verse became the subject of everlasting gibes and parodies: thus one of the comic poets says,—"I have saved thee from the sigmas of Euripides."

Shall us? This gross blunder is to be found in Shakspeare. In the 'Winter's Tale,' (Act i., Scene 2,) Hermione says,—"Shall us attend you?"

In discussing the terms *a-dry*, *a-hungry*, &c., Mr. Pegge leans to the opinion of Bishop Lowth, who believes the *a* in such cases to be merely the word *on* "a little disguised by familiar use and quick pronunciation." In this section our author tells an entertaining anecdote:—"Such was the ridiculous attachment to long and high-sounding names and titles in Spain, that when an epidemical sickness raged in London in the reign of Queen Elizabeth, the Spanish Ambassador (who I suppose enjoyed a sesquipedal name) was consigned, for safety, to the charge of Sir John *Cutts*, at his seat in Cambridgeshire. The Don, upon the occasion, expressed some dissatisfaction, feeling himself disparaged at being placed with a person whose name was so *short*. An amnesty, however, was soon granted by the Spaniard; for my author says, 'that what the knight lacked in length of name, he made up in the largeness of his entertainment.'"—Fuller's 'Worthies,' p. 176. Cambridgeshire.

We must content ourselves with two more Cockneyisms.

A few while. "Stay a few while," a Londoner says, "and I will go with you." On this expression our author observes, that *while* was once the respectable Saxon substantive *hwile*, denoting an indefinite interval of time, and therefore the phrase ought to be "a few whiles." He remarks, that "similar ellipses with regard to the consonant *s*, at the termination of words, occur frequently (though in a different situation) in various parts of the north of England; as in Derbyshire for example, the common people seldom fail to omit the sign of the genitive case, and instead of Mr. Johnson's horse, or Mr. Thompson's cow, will say Mr. Johnson horse, and Mr. Thompson cow. Do not the French take the same liberty by dropping the sign in the genitive case, as in *Mappe-Monde*, *Maison-Dieu*, *Chapeau-Bras*, &c.; and again in law language, *Ventre sa Mere?*" He afterwards says, "I cannot help observing one application of the word *few*, peculiar to the northern counties, for which there seems to be no justifiable reason; for, when speaking of *broth*, the common people always say—'Will you have a *few* broth?' and in commending the *broth*, will add—'*They* are very good.' This is also an appropriation so rigidly confined to *broth*, that they do not say 'a few *ale*,'—

'a few *punch*,'—nor 'a few *milk*,'—'a few *furmenty*,'—nor a few of any other liquid. I would rather suppose that they hereby mean elliptically *a few spoonsful of broth*; for *broth* cannot be considered as one of those hermaphroditical words which are both singular and plural, such as *sheep* and *deer*, because we never hear of '*a broth*' in an independent and abstracted sense."—p. 221.

Gone dead. "Dr. Johnson was aware of the present vulgar use of the word 'gone' among the Cockneys, when he jocularly tells Mrs. Thrale, in one of his letters from Lichfield, 'that Brill, Miss ——'s old dog, is *gone* deaf.'"—Letter CXIV.

These anecdotes, besides the philological instruction to be derived from them, may serve to show how great has been the progress of knowledge within the present century; for many of the blunders which Mr. Pegge attributes to respectable citizens would now be scouted by every one who made the smallest pretensions to education.

ANSWERS OF THE DEAF AND DUMB PUPILS AT THE EXETER INSTITUTION.

If any of our readers were to endeavour to devise for themselves some process by which they would communicate any abstract ideas to those who have been deaf, and therefore dumb, from birth or early infancy, they would soon perceive by what difficulties such an attempt is surrounded; and, unless they had some previous knowledge of the process actually employed, they would be disposed to consider success in such an undertaking perfectly hopeless. But it is one most interesting circumstance of the state to which civilization has brought us, that no man is, or need be, left utterly desolate by any physical deprivation to which our nature is exposed. The blind can read, and the deaf and dumb can acquire and express ideas the most abstract and the most complex. It is not our present intention to enter into the details of the process by which this is effected; but we are enabled to communicate some of the results obtained by the process actually employed.

At the Exeter Institution it is customary for the masters to ask their pupils the meanings of words; and their answers are written down upon slates which are kept hanging up in the school-room for one day subsequently; during which the scholars have access to them, and often transcribe their own answers and those of the other students. From a book so kept by one of these scholars, the following extracts have been made, consisting of such answers as appear most original or striking. It will be seen that many of the answers are remarkable in themselves; and we have retained some which may not appear so at first, but which will be felt interesting, as indicating the degree of success with which an abstract idea had been conveyed to the pupil, and of the manner in which his mind entertained it. The several answers will be found to indicate the various degrees of progress which the pupils had made, and the measure of aptitude they respectively possessed.

What is Revenge?—Revenge is murder in the heart: it is cruel without necessity.—Revenge is when a boy will not give me some cakes: I will fix it in my mind, and I will not give him cakes. God hates revenge.—Revenge has a bad heart.—Revenge is hatred with cruelty: if my master is displeased with me, and I keep it in memory and hurt his dog, it is revenge.

What is Anger?—Anger is great displeasure. Masters are angry with careless servants, because they break pretty plates, cups, and saucers.—Anger has troubled thoughts.—Anger has a red face and fierce eyes.—Anger is a bad feeling of the heart.—Anger has violent thoughts; anger will not reason; anger is quick and impatient; anger is rage: a man's cook spoiled his dinner, and he was angry and told his servant to go away from his kitchen.

What is Despair?—Despair is the expectation of a certain evil: the sailors despair when the ship breaks and the large waves fall on them.—Despair has no hope. Despair has a pale face: the great murderer despairs when the judge says he must be hanged.—Despair is fear without hope.—Despair is darkness in the mind.—Despair does not love play.—Despair is idle.—Despair is wildness in the mind.—Despair has no pretty home.

What is Hope?—Hope is desire joined with belief.—Hope is a mental looking towards a happy state with a desire to attain it.—Hope is the soul's sunshine; its support and comfort under toil and hardship.—Hope is the staff of life; it cheers us in affliction, and supports us in our journey through life. If we meet with disappointment we look for better days, and if we are poor and needy, hope tells us to pursue industry and improvement, and we shall obtain sufficient to support us in this world.

What is the Soul?—The soul is the conscious being within me which directs my actions, and restrains or inclines me to whatever I do.—The soul is that active principle within me which remembers, distinguishes, and reasons.—The soul is the life of my body: when my soul leaves my body, my body will die. It cannot be caught nor seen. God can see it, and God talks to my soul: it is not deaf, it is not dumb, it hears God, and it will sing to God when I go to heaven.

What is Eternity?—Eternity is duration without beginning and without end.

What is the Difference between Immortality and Eternity?—That immortality extends only to endless life in future, and eternity embraces duration without beginning or end.

What was your condition before Instruction?—I was ignorant, and knew not right from wrong. I was unacquainted with language and every other accomplishment. I had no idea of a Supreme Being or of a hereafter.—My present condition is that of a rational being: I know my duty to God and man: I know the reward of virtue and the punishment of vice. My former condition was unhappy, lonely, and miserable: I could not reason: I did not know anything of religion.

What is Knowledge?—Knowledge is the subject of thoughts, memory, judgment, and understanding.—Knowledge is science. Things that are seen and lectured upon expand the mind. When Mr. Bingham told me that God created all things, that he was invisible, but could see in the dark as well as in the light, I thought he was joking. He showed me an old watch, and took it to pieces, and pointed out the course of its moving by the fusee being wound up, which tightened the spring. He then took a blade of grass, a leaf of a tree, an insect, &c., and showed me there was no spring, but several fibres, which contained sap and nourished the leaf. After showing and explaining many other things, he asked me if man could make a blade of grass, &c. And I said, No. He then told me that God made all things; and I perceived by my mind that man's power and capacity was nothing compared with God's.

What is Science?—Science is knowledge obtained by what is made visible to the mind.—Science is knowledge founded on demonstration or certainty.

What is Art?—Art is whatever is accomplished or produced by the skill of man, as distinguished from natural causes.—Art is produced by the invention of man: it is the skill of the mind and the power of the body.

What was the state of your mind before receiving Instruction?—My mind, previous to instruction, was like a dark room filled with many good and beautiful things; but for want of a light they were hid.—My mind was like ore that requires the strong heat of a furnace to separate it from the dross.—The state of my mind was like the earth without the sun.

What is the difference between Reason and Judgment?—Reason is the torch of the mind, and judgment is the guide.

What is Economy?—Economy means taking care of money; that is, not spending it upon trifles, or things which are of no use; and also in taking care of my clothes;—and also in trying to make the money I have last a long time.—Economy means keeping money, and never buying any pretty thing that is not useful. If I do not keep my clothes clean, and if I do not brush them, I am not economical.

What is Virtue?—Virtue is pure motives and doings: it is good because it comes from God.—Virtue is like an angel.

Who is God?—God is the life and preserver of all things. The sun rises and sets and gives us light and heat, because he is in the sun, and he commands it. The wind comes, and he is in the wind; the rain comes, and he is in the rain. He is the judge of the world: he will punish the wicked, but he will give life and happiness to the good.—God is our Almighty Father: he made this large world, and the trees, beasts, and mankind. We worship him because he can give us all good things; and we love him.—God is the incomprehensible being that is above us, and around us, and that sees us always. He has no fault. He will never decay. He sends us health, and food, and covering for our bodies; he sends us wisdom and joy for our souls. I see that God is most good and merciful.—God is a most holy being, and he is omnipotent. He sees the past, the now, and the future. He cannot mistake. He does not doubt.

What is Memory?—I came from Dawlish: I can draw in my mind its houses, the sea-shore, my mother's house. I can see the town of Dawlish in my mind: this is memory.—Memory is the portrait-gallery of the past. I can look upon my school-fellows and my home; I can remember when I was a little boy; but I cannot see these things with the eyes of my body: they are in my memory.—Memory is a mental cabinet, that receives my ideas and holds my thoughts.—Memory is like a drawing-master: it shows me the forms of my parents; memory paints in my mind what I wish to keep long.—Memory is the consciousness of what is gone, or was done yesterday, or some time ago.

What is an Idea?—An idea is a figure in the mind.—An idea is an image seen by the mind.

What is Friendship?—Friendship is love without its fickleness, and produces affection without distrust. It has respect to the good qualities of the mind and heart, and is not formed upon common or extrinsic circumstances.—Friendship is progressive kindness of the heart between persons of excellence.

What is Contentment?—Contentment is enjoyment without anxiety, and satisfaction without desire. It does not look with envy at the greatness of another, nor seek to enlarge possessions by ambition or meanness.—Contentment is an even state of mind that asks for no more than what it possesses.

What is Gentleness?—Gentleness is the disposition of virtue. It is mild and soft, and does not oppose others from a desire to differ or quarrel. It is complying, but not mean: it bows to the will of others, but does not approve their errors.—Gentleness is an innate goodness of heart, that feels willing to oblige others.—Gentleness is a natural inclination of the mind to be kind to all. A gentle disposition will bear patiently all the ill-will of another person without being put out of temper.

AN ENGLISHMAN'S VALUATION OF HIS LIFE.

AT the time when party spirit and active hostilities were raging in Belgium at the close of the fifteenth century, certain soldiers of the Spanish army happened to be taken prisoners by the Dutch; and by way of martial retaliation for a similar act of cruelty practised upon some Dutch prisoners by the Spaniards, all of them were ordered to be hanged. Humanity, however, suggested that it was unnecessary to put the whole party to death; and of the twenty-four who were taken, eight only were eventually destined for the halter. For the purpose of ascertaining who were to be the sufferers, twenty-four lots were made, eight of which had the figure of a gibbet described upon them, and the remaining sixteen were in blank. The whole twenty-four lots being then shaken together and cast promiscuously into a helmet, each prisoner was ordered to draw out one; those who drew a blank lot were immediately discharged, but those who drew the fatal symbol were hanged on the spot. The conduct of those who were compelled to set their lives upon so desperate a cast, varied according to the nerve and temperament of each; but terror and lamentations prevailed. The most conspicuous object was a Spaniard, who could scarcely be urged to the helmet, and whose tears and exclamations excited both ridicule and compassion. Among the captives was an Englishman, who seemed wholly unmoved at his danger, and quietly looked on until his turn arrived; and when called upon by the Dutch officer, walked up to the helmet with the utmost unconcern, and without faltering or changing a feature, drew forth his lot,—which was a blank. Thus favoured by fortune, and himself free from danger, he told the trembling Spaniard, who still held his hand in the helmet dreading to draw forth his fate, that for ten crowns of gold he was ready to draw his lot for him, and stand to the consequence. The Spaniard joyfully agreed, and the Englishman, having received the money, coolly requested the Dutch officer to allow him to fulfil his part of the contract by drawing the Spaniard's lot; and permission being given, he drew again, and again was fortunate. "A strange caprice of fortune," says the historian, "which could thus favour a man whose cheap estimate of his life made him unworthy, not only of this double escape, but even of a single lucky cast!"

This story is taken from a description of England in the reign of James I., contained in a satirical Latin work written by a Scotchman named John Barclay, under the assumed denomination of Euphormio Lusinius.

Memory of the Bullfinch.—Tame Bullfinches have been known (says Buffon) to escape from the aviary, and live at liberty in the woods for a whole year, then to recollect the voice of the person who had reared them, and return to her, never more to leave her. Others have been known, which, when forced to leave their first master, have died of grief. These birds remember very well, and often too well, any one who has injured them. One of them having been thrown down with its cage, by some of the lowest order of people, did not seem at first much disturbed by it, but afterwards it would fall into convulsions as soon as it saw any shabbily dressed person, and it died in one of these fits eight months after its first accident.—*Bechstein's Cage Birds.*

THE SABLE.

THIS animal, which is so much valued for its fur, belongs to the same genus with the common marten, which it greatly resembles in form, and it is nearly of the same size. They are of that class of animals which are called *vermiform*, on account of the great length of their bodies and shortness of their legs, which enables them to pass through very small apertures. The head of the sable is small and oval, with short round ears and long whiskers. The feet are large, each having five toes furnished with white claws, which are short, hooked, and very hard pointed. This animal is distinguished from others of the same genus by having the fur extended to the extremities of the toes, and even under them. The tail is somewhat bushy: it is five inches long, but with the hair it measures eight inches. The body is nearly of equal diameter throughout; and, in proper season, is thickly covered with hair, the colour of which is black at top and cinerous at the bottom: the throat is cinerous, sometimes white, yellow, or spotted, and the edges of the ears are yellowish. Sometimes the hair has a tawny cast, for in spring, after shedding the coat, the colour varies. The length of the animal is about eighteen inches exclusive of the tail.

The chief residence of the sable is in Asia, beginning at the Uralian chain, and becoming more and more plentiful in the progress eastward, and more valuable in the advance to the north. None are found to the north-east of the Anadir, nor in any parts destitute of trees. They prefer vast forests, especially those of fir, in which the furs of greatest beauty are found. They are frequent in Kamtschatka, and are met with in the Kurile Isles. Their proper limit extends from 50° to 58° north latitude.

The sable lives in holes in the earth, or beneath the roots of trees; sometimes, like the marten, forming nests in the trees, and skipping with great agility from one to another. It is very lively, and much in motion

during the night, but generally sleeps in the day. It goes abroad to seek its prey during the night, if the weather be clear and fine; but if otherwise, it retires to sleep. It is very courageous, and will attack and destroy animals of larger size than itself. Weasels, squirrels, and hares, form its usual prey in summer; in winter it is said to feed on birds, particularly partridges; it will also eat fruit, especially that of the service-tree, and it is, indeed, stated that fruit and berries form the principal part of its subsistence in autumn. During this season the furs are at the worst, their vegetable diet causing their skins to itch, when they rub off their fur against the trees. When very unsuccessful in its own researches for food, and therefore pressed by hunger, the sable follows bears, gluttons, and wolves, as the jackal does the lion, to partake of the overplus of their meals.

The females, towards the end of March or the beginning of April, produce from three to five young, which they suckle about four or five weeks. It seems that the sable is capable of being rendered very docile. Steller relates an instance of one that was domesticated in the palace of the Archbishop of Tobolsk, which used to wander about the city and visit the neighbours.

The fur of this animal is so much valued, that the best skins, although not more than four inches broad, are said to average the price of from 12*l.* to 15*l.*, and the general price varies from 1*l.* to 10*l.* A fur merchant of London, in a communication printed in Macculloch's 'Commercial Dictionary,' after speaking of the great fluctuations of price in the different articles of the fur trade, says,—"Among the furs that *always* rank very high (though, like all the rest, they change in value), may be specified the Siberian sable, and the black and silver fox. These articles are at all times comparatively very scarce, and command high prices." The darkest furs are the most esteemed. The colour and quality of the furs are very liable to vary, not only in different climates, but in the same individual at different seasons. It is from November to February that the fur is darkest, and in the best condition; and the descriptions given of the animal by naturalists generally apply to the state in which it then appears.

The finer descriptions of sable-skins are sold without the bellies, which have a fur of lighter hue than the rest of the body; but, in the coarser sorts, the bellies are suffered to remain. The very finest sable-skins are sold in pairs perfectly similar, and thus paired they bring a better price than single ones of equal goodness, as the Russians want such pairs for facing caps, cloaks, tippets, &c. The legs or feet of sables are seldom sold separately. White sables are rare, and are not objects of merchandise, but bought only as curiosities: some are yellowish, and are bleached in the spring on the snow. The bellies of sables, which are sold in pairs, are about two fingers' breadth, and are, like the skins, tied together in parcels of forty each. The price of one of these parcels varies from one to two pounds sterling. Tails are sold by the hundred. The very best skins must have their tails, but ordinary ones are often cropped: a hundred sell for from four to eight pounds.

The hair of the same skins differs in length and quality. The longer hair is silky, and the shorter, or under hair, is woolly. The more a skin has of the former, and the less of the latter, the colour being at the same time good, the more precious it is: the very best skins have scarcely any other than the long silky hair. Besides various other circumstances regarding the furs, the furriers pay attention to the size, and, other things being equal, always prefer the largest skins, and those that have the best gloss, to others. The size depends upon the animal being a male or female, the latter being always the smallest. The gloss disappears in old furs; the fresh ones have what furriers call a "*bloomy* appearance;" the old ones are said to have "done blooming." In consequence of the vast difference of price in the furs of the same species of animal, the most ingenious impositions are practised, by dressing and dyeing, to make the inferior qualities look like the superior. The dyed sables, however, in general lose their gloss, and become less uniform, whether the lower hairs have taken the dye or not; and the hairs are mostly twisted and crisp, and not so straight as in a naturally good fur. Some fumigate the skins to make them look blacker, but the smell and the crisped condition of the long hairs often betray the imposition; and it is said that both the dyeing and fumigation may be detected by rubbing the fur with a fine linen cloth, which always becomes black in such cases. Both the Russians and Chinese are highly imitative people, and particularly excel in their respective processes of making a bad article appear like a good one of the same class. The Russians export yearly, and sell for the true winter sables, a vast number of summer sables, which have been prepared with so much art that it is often extremely difficult for the most experienced persons in the fur-trade to perceive the fraud. In this kind of deception the Chinese are said to surpass even the Russians, for the dye not only lasts, which is more than the Russians can effect, but the fur retains its gloss; so that there is no other way of detecting the imposition but by the somewhat crisped state of the hairs. This is the reason that all the furs which are of the best kind, either in pairs or separate, are carried to Russia; the rest go to China. The very best sables come from the environs of Nertchitsk and Yakutsk; and those that come from the neighbourhood of the river Ud are particularly valuable.

It necessarily results from the costliness of the fur, that men have not been deterred by any ordinary difficulties in the pursuit of the animal which affords it. Indeed, there is no article of luxury to obtain which more distress is endured, or more peril incurred, than in the chase of this animal, which is carried on in the depth of winter,—among mountains covered with ice, and in the deepest snows,—in the coldest and most desolate regions to which man has yet penetrated. The hunters are often overcome by the combined operation of fatigue, cold, and hunger, and perish in those remote solitudes. Formerly, in the Russian Empire, the hunting of the sables was a task imposed upon the exiles who were banished to Siberia. As that country became more populous, the animals retired into the remote forests and mountains; and it was the further pursuit of them which led to the discovery of Eastern Siberia. We suppose that an account of the manner in which the hunting of the sable is at present conducted in that country will not be without interest to our readers.

The sable-hunters form themselves into parties of from five to forty each. The last subdivides into smaller parties, each of which has a leader; but there is one person who directs and controls the whole. Each party is furnished with a small covered boat, laden with provisions; they are also furnished with a vessel to bake their bread in, and there is a dog and a net to every two men. Each party is provided with an interpreter for the country which it intends to penetrate. Every party then sets out in the direction prescribed by the leader. They go against the stream of the rivers, drawing their boats up until they arrive in the hunting country. There they stop, build themselves huts, and remain until the rivers are frozen and the season commences. Before they begin the chase their leader assembles them together, when they join in prayer to God for success and safety, and afterwards separate. The first sable each party takes is called "God's sable," and is dedicated to the church.

The small parties then penetrate into the woods, and

mark the trees as they advance that they may know their way back; and when arrived in the hunting quarters, they form huts of trees, and bank up the snow around them. Near these they lay their traps; then they advance farther, and lay more traps; still building new huts in every quarter, and returning successively to every old one, to visit the traps, and take out the game, and skin it, which none but the chief of the party must do. The traps are a sort of pit-falls, with a loose board placed over it, baited with fish or flesh. When the sables become scarce, the hunters trace them in the new-fallen snow to their retreats, placing their nets at the entrance, and sometimes have to remain waiting two or three days on the watch for the appearance of the animal. Another way of taking the sable is by placing a piece of timber from tree to tree horizontally; near one end of this a bait is placed. Over this piece of wood another is suspended obliquely, one end slightly resting on a post, and a rod extending from it to a noose to which the bait is fastened. As soon as the sable seizes the meat, the upper timber falls and kills him.

During this time the hunters are supplied with provisions by persons who are employed to bring it on sledges from places on the route where they are obliged to form magazines. The hunters are sometimes reduced to dreadful extremities from the failure of their provisions, and sometimes they perish. The following passage from the 'Travels of Bell of Antermony,' (vol. i., p. 230,) published in 1763, besides describing another mode of taking the sable, mentions a curious process resorted to for suppressing the cravings of appetite. "The sables are not caught in the same manner as other animals. The fur is so tender that the least mark of an arrow, or ruffling of the hair, spoils the sale of the skin. When a hunter finds the track of a sable in the snow, he follows it perhaps for two or three days, till the poor animal, quite tired, takes refuge in some small tree,—for it can climb like a cat; the hunter then spreads his net around the tree, and makes a fire: the sable, unable to endure the smoke, immediately descends, and is caught in the net. I have been told by some of these hunters that, when pinched with hunger in some of these long chaces, they take two thin boards, one of which they apply to the pit of the stomach, and the other to the back, opposite to it; the extremities of these boards are tied with cords, which are drawn tighter by degrees, and prevent their feeling the cravings of hunger."

When the season is concluded, the hunters reassemble,—report to their leader the number of sables each has taken,—make complaints of offenders against their regulations,—punish delinquents, and divide the spoil. They then continue at head-quarters until the rivers are clear of ice, when they return home, and deliver to every church the dedicated furs.

What is commonly called the American sable is now known to be a distinct species. It is a larger animal than the true sable of Siberia; it is of a glossy, silver, black colour, which is paler towards the fore-quarters, and slightly red about the nose; the tail and legs are velvet black, the hair silky, and the fur very beautiful. The hunters call it the fisher, but improperly, as it by no means frequents the water, but its habits are almost entirely similar to those of the animal to which our attention is more particularly limited. As the skins of these animals are not so valuable as those of the true sable, the American hunter, as represented in our engraving, does not hesitate to shoot them.

[Sable Hunting in North America.]

*** The Office of the Society for the Diffusion of Useful Knowledge is at 59, Lincoln's Inn Fields.
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